

HFUS 3 BOU 262200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 057

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 26 FEB 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 25/2100 TO 26/2100Z: SOLAR ACTIVITY HAS BEEN LOW TO MODERATE. REGION 4423 (S12E23) PRODUCED A SLOW RISE, LONG-LIVED M1/1B AT 1256Z (X-RAY MAX). MODERATE RADIO BURSTS OCCURRED WITH 140 FU RECORDED AT 2695 MHZ. REGION 4423 APPEARS TO HAVE REACHED MATURITY; DECAY IS OCCURRING IN THE TRAILER SUNSPOT STRUCTURE WITH CONTINUING DECAY OF THE ATTENDANT PLAGE. REGION 4421 (N16W40) CONTINUES TO DECAY. THE DELTA CONFIGURATION REMAINS BUT WITH A DECREASE IN THE MAGNETIC GRADIENT. THE PENUMBRA IN THE CENTRAL PORTION OF REGION 4422 (N11W16) HAS GROWN, ENCOMPASSING BOTH LEADER AND TRAILER UMBRA, FORMING A DELTA CONFIGURATION. THE NEUTRAL LINE, HOWEVER, HAS NOT CHANGED. NEW FLUX MAY BE EMERGING AT THE EDGE OF THE NEUTRAL LINE FILAMENT NORTH OF REGION 4422. IF THIS EMERGENCE DISRUPTS THE FILAMENT, A SIGNIFICANT FLARE COULD OCCUR IN REGION 4422. REGION 4425 (S13W11) HAS EMERGED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE WITH DECREASING FREQUENCY IN THE OCCURRENCE OF CLASS M FLARES. OCCASIONAL CLASS M FLARES ARE STILL POSSIBLE FROM REGIONS 4421, 4422, AND 4423 THROUGH THE FORECAST PERIOD.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 25/2100Z TO 26/2100Z: THE GEOMAGNETIC FIELD HAD BEEN UNSETTLED BUT BECAME ACTIVE AFTER 1000Z.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN ACTIVE THROUGH 27 FEBRUARY AND THEN BECOME UNSETTLED TO ACTIVE THE BALANCE OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 27 FEB-29 FEB

CLASS M 60/50/50

CLASS X 05/01/01

PROTON 10/05/05

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 26 FEB 168

PREDICTED 27 FEB-29 FEB 185/162/157

90 DAY MEAN 26 FEB 115

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 25 FEB 008/012

ESTIMATED AFR/AP 26 FEB 015/025

PREDICTED AFR/AP 27 FEB-29 FEB 025/025-012/020-013/020

SOLTERWARN

BT